INDIAN HEALTH SERVICE
National Pharmacy and Therapeutics Committee
Formulary Brief: ***Chronic Kidney Disease Prevention***
-February 2026-

Background:

The Indian Health Service (IHS) National Pharmacy and Therapeutics Committee (NPTC) reviewed preventive measures for Chronic Kidney Disease at the 2026 Winter quarterly meeting. Medication(s) discussed specifically in this review and listed on the IHS National Core Formulary (NCF) include(s) empagliflozin, lisinopril, lisinopril + hydrochlorothiazide (HCTZ), losartan, losartan + HCTZ, and semaglutide. Guidelines from the American Diabetes Association, Kidney Disease Improving Global Outcomes (KDIGO) organization and National Kidney Foundation were central to the review. Following topic review and deliberation, the NPTC made **no modifications** to the NCF.

Discussion:

Chronic Kidney Disease (CKD) is defined in clinical practice as glomerular filtration rate (GFR) less than 60 or albuminuria with the GFR in the normal range, or both. Albuminuria, with or without a decreased GFR, increases risk of progression of end-stage kidney disease (EKSD). The incidence of ESKD in American Indian/Alaska Native (AI/AN) people is approximately twice that of White Americans.[1] Despite progress in reduction of ESKD in AI/AN people, the death rate for AI/AN people with CKD remains second highest among racial and ethnic groups behind Black Americans.[2-3]

Albuminuria is a strong predictor of progression to ESKD.[4] Other predictors of CKD include hypertension, diabetes, obesity, smoking, and physical inactivity. Preventing CKD involves addressing these factors with lifestyle and with medication when appropriate.

Lifestyle is important in preventing onset of CKD. A large meta-analysis with defined onset of CKD as GFR < 60 ml/min found the odds ratio (OR) for onset of CKD for vegetarian vs. standard diet was substantially reduced (OR 0.79, 95% CI: 0.70-0.90).[5] Physical activity, high vs. low, demonstrated an OR of 0.82 (95% CI: 0.69-0.82) and smoking status (current vs. former) with an OR of 1.18 (95% CI: 1.10-1.27). Obesity, when controlled for blood pressure, glycemic control, and age were insignificant, suggesting obesity is a risk for hypertension and diabetes, and while not a specific risk for CKD, it contributes to multiple other risk-raising conditions.[6]

Medication therapy for diabetes and hypertension also prevents or delays progression of CKD. Angiotensin converting enzyme inhibitor/angiotensin receptor blocker (ACEI/ARB) use has long been shown to reduce risk for progression of CKD, especially in people living with diabetes. The use of an ACEI is associated with reduction in progression to ESKD for those with pre-existing CKD (OR 0.54, 95% CI: 0.41-0.73). Use of ACEI/ARB for CKD is dependent on utilizing the maximum tolerated (recommended) dose.[7]

Sodium-glucose co-transporter type 2 inhibitor (SGLT-2) use is demonstrated to reduce progression of CKD. Empagliflozin has been named to the NCF since 2019 and is the representative agent for this drug class. This impact is thought to be a class effect of all SGLT-2 drugs. The OR for reduced decline in GFR for people with CKD is 0.62 (95% CI: 0.57-0.68), favoring use of these agents for CKD.[8]

Glucagon-like protein type 1 agonist (GLP-1) drugs are also shown to reduce progression of CKD. The IHS NCF representative GLP-1 agent is semaglutide, which has also been listed on the NCF since 2019. In a large meta-analysis published in 2025, semaglutide reduced GFR decline by 22% (OR 0.78, 95% CI: 0.68-0.89).[9]

Mineralocorticoid receptor blockade, specifically with finerenone use, reduced GFR decline for those living with CKD by 15% (OR 0.85, 95% CI 0.77- 0.93).[10] Finerenone is not an NCF agent and was not added to the NCF at this meeting.

Nephrotoxin avoidance is important in the prevention of CKD. Avoidance of excessive non-steroidal anti-inflammatory drugs use is recommended. Avoiding all potentially nephrotoxic drugs-- including antihypertensives, diuretics, metformin, semaglutide, empagliflozin and others -- in the context of acute dehydrating illness is also important. This is termed “sick-day management”. Multiple professional guidelines including the IHS CKD in Type 2 Diabetes guideline recommend sick-day management counseling where providers clearly identify these medications, discuss when to hold these medications, for how long, and how and when to resume them.[11]

Findings:

Preventing progression of CKD involves both lifestyle and pharmacotherapeutic means.[12] The following represent guideline-recommended strategies which work to slow or prevent further renal impairment in adults with CKD.

1. Target blood pressure control at <130/80 as primary prevention and <120 mm Hg for people with pre-existing CKD. Sodium restriction, home blood pressure monitoring and healthy eating are recommended for all. Utilize drug classes (ACEI or ARB) at maximally tolerated doses to prolong progression of CKD.
2. For glycemic control for people with diabetes and CKD, target Hgb A1C of 6.5% or less when clinically reasonable. Utilize the SGLT-2 and GLP-1 drug classes where appropriate. Screen for albuminuria and creatinine regularly to identify CKD early.
3. Achieve or maintain an ideal body weight. Obesity is a risk for all conditions that increase CKD potential.
4. Avoid concomitant nephrotoxins (including "sick-day" management) for people on potentially nephrotoxic drugs.
5. Encourage physical activity >150 minutes per week to positively impact hypertension, diabetes, obesity, and sedentary lifestyle.
6. Encourage smoking cessation where applicable.

If you have any questions regarding this document, please contact the NPTC at IHSNPTC1@ihs.gov . For more information about the NPTC, please visit the NPTC website.

References

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